IN THE SPECIFICATION:

Please amend the paragraph beginning at page 5, line 16 with the following rewritten paragraph:

The appendage "-T" (i.e., "Turbo") is added to the references to the transmission codes used herein in order to distinguish these codes from conventional codes. The new 8B/10B-T transmission code retains the 5B/6B-T and the 3B/4B-T partitions. The codes presented herein are designed for high speed operation. Many of the changes between the conventional transmission codes and the transmission codes described herein are in the 5B/6B-T domain. For instance, for both the 5B/6B-T encoding and decoding described herein, fewer modifications of bit positions, in fewer vectors, are performed as compared to conventional 5B/6B techniques. As another example, the S-Function, which has an important purpose of preventing false commas, has been reduced to the minimum required to maintain the singularity of the comma at the expense of more frequent single runs of five in random data. A comma generally indicates proper byte boundaries and can be used for instantaneous acquisition or verification of byte synchronization. The K28.7 comma character of the traditional code has been swapped with a formerly invalid control character K3.7 ('1100001110' and its complement) which is not a comma character but has no sequence restrictions. ~~Nine~~ Seven additional control characters have been defined and are listed in the table shown in FIG. 8.

Please amend the paragraph beginning at page 10, line 27 with the following rewritten paragraph:

An additional set of ~~nine~~ seven control characters are defined in the table shown in FIG. 8. All these characters use the alternate A7 coding in the 4B domain when following a 6B vector with K = 1, which does not require the alternate code for purposes of compliance with the coding constraints. The 6B part is a disparity dependent balanced vector, which is complemented by analogous rules as are the balanced 4B vectors when the K-bit has a value of one. These ~~nine~~ seven extra characters are not implemented in the circuit diagrams attached and treated as invalid characters. It is useful to know of their existence for certain applications.

Please amend the paragraph beginning at page 22, line 24 with the following rewritten paragraph:

Concerning notation for net names in the decoding circuit diagrams of FIGS. 15A and 15B: For the Boolean operators, the identical letters are ~~use~~ used as for the encoding diagrams, but they are capitalized (A, O, N, E, UE) to avoid confusion with some of the lower case letters abcdeifghj which represent the coded bits.